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E.O.G.
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File SAFR
Steering

MEMORANDUM FOR: DISTRIBUTION

STAT FROM : [REDACTED]
Director, Consolidated SAFE Project Office/ODP

SUBJECT : Point Paper for SAFE Steering Committee

REFERENCE: ODP-81-1468 dated 4 November 1981, Subject:
Fourth Quarter 1981 SAFE Steering Committee
Meeting

The attached Point Paper outlines the major topics to be addressed by the SAFE Consolidated Project Office briefing on 2 December 1981. The meeting will be at 1430 in Room 3E267 in the Pentagon.

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[REDACTED]

Director, Consolidated SAFE
Project Office/ODP

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U-8164/RS0-P

Point Paper for SAFE Steering Committee, 2 December 1981

SUBJECT: Quarterly SAFE Steering Committee Meeting

The following Point Paper provides the Steering Committee members and attendees with an outline of the SAFE Project's current status, progress and problems since the last Steering Committee Meeting on 7 August 1981. The Point Paper is aligned with the Agenda provided in SAF-E757-81 memorandum announcing the meeting.

- o TECHNICAL DEVELOPMENT - Majority of presentation will focus on results of on-going Preliminary Design Review (PDR) for Block 1 being administered in three phases.
 - PDR Objective: Trace requirements to design, determine integrity and validity of design to meet functional and performance requirements, present software/hardware to unit level.
 - Phase I - Review completed 16-20 November 1981, covered demonstration of requirements accountability, allocation of baseline, derivative specifications for Block 1 (B-5 Specifications).
 - Phase II - Scheduled 30 November - 4 December review of system concept and design.
 - Phase III - Scheduled 14-18 December - review initial detailed design down to unit level. (C-5 Specifications), validation of design and approval of Project Plan/Financial Plan.
 - As a result of Phase I review, there are areas of concern: capture of system design; traceability of requirements; consistency and completeness of design (top level as well as level of detail).
 - Some areas of design are adequate to proceed (EMP, COMM); others will take time to fix, estimate March 1982 before major items are cleared.
 - Phases II and III will be combined with review scheduled 14-18 December 1981.
 - A summary and PDR wrap-up will also be scheduled for January 1982.
 - Project Plan/Financial Plan is late; projected delivery is 15 December vice 20 November 1981. Will cover review during January 1982 - summary and wrap-up.

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- As a result of a [] internal review of design status they feel:
 - . SAFE has reached PDR status.
 - . [] policies have been implemented and are being followed.
 - . PDR documentation exceeds minimum set required by policies.
 - . Review comments/issues are being addressed; closure of all items is scheduled prior to end of January 1982.
- SAFE User Language (SUL) Spec
 - . Commands and Functions identified for initial CIA delivery - Action Items to be completed by 15 Jan 82.
 - . Syntax to be completed by 1 Feb 82.
 - . Language specification for all of Block I to be completed by 1 Mar 82.
- Development Facility: 1 Burroughs 7800 and 5 Burroughs 6900s up and operating; 50 Delta Data terminals; all supporting software development.
- CIA Facility: 1 Burroughs 6900 delivered; undergoing acceptance testing.
- Communications: Critical Design Review (CDR) scheduled for April 1982.
 - . Processor Interface Unit (PIU) - thru-put problem unresolved between []
 - [] proceeding with lower thru-put; may cause performance penalties.
 - [] has proposed solution for higher thru-put, but costs are inflated (\$3.6 million).
 - Government intercession will probably become necessary.
 - . Inter-computer communications (ICC) bus - under control and on-schedule -- delivery December 1981.
 - . Wideband cable testing at headquarters proceeding on schedule.
 - . Bus Interface Unit (BIU) - Coming together; under control; costs stabilizing under 3K per unit.

- What as per 10 Dec 1980
STAT status of requests.
Prior were V.D.F (Prov. they
had D.O.)*
- Crypto Module - on schedule; initial testing at Development Facility completed.

- Now in 3.1
2.9 to 3.0 - P0
corrections
STAT*
- communications development overstaffed (62); under review for reduction.

- 3.1 - 4 known prob.
DD here Tabled.
Testing to 15 Jan
Functioning end Dec.
Mid Jan Speed*
- Conversion Requirements Specification: CSPO ready to baseline Vol. I (Requirements) and Vol. II (Concept of Operations), holding for changes pending Design Problem Report (DPR) 221.

- Terminal: Persistent firmware problem; Government vulnerable to need quick resolution.*
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- Two sets of PROMS delivered - known problems, testing under way.
- Need baseline documentation - Confirmation that the terminal will do what has been agreed; need accurate documentation.

AWARD FEE SCORING	1	2	3	4	5
Technical Performance	67	76	81	71	33
Management	75	71	70	65	35
Schedule	95	90	77	65	33
Security	98	90	90	90	90
Aggregate	83.8	81.8	79.5	72.8	47.8

- 8150 of 403 available*
- Overall performance for 5th period was evaluated as marginal.

- Problems outlined in previous evaluations persisted with predictable results.
- Management was aimed primarily toward gaining technical control - on-going activities were marginally managed.
- No current Project Plan/Financial Plan.
- Staffing level inappropriate to the state of development.
- Funds expended not commensurate with technical achievement.
- Technical status could not be evaluated with reasonable certainty.
- Management and organizational changes late in period place competent management in several key positions; results should be evident in upcoming periods.

o SCHEDULE AND FUNDING ISSUES

- Funding

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- . OTHER: Includes Crypto, terminals, printers, site preparation, technical support [redacted]
- . Current burn rate jeopardizes future Blocks.
- . FY 82 - Contractor directed by CSPO to stay within the Government's FY 82 budget profile - [redacted]
- . Contractor is reducing staff by 50, effective 1 Dec 81.
- . Further reductions of 40-50 being planned to stay within budget.
- . FY 83 and FY 84 does not include enhanced packages of CIA and DIA of approximately \$2.0 million in FY 83 and \$4.6 million in FY 84.
- . Additional options for 83 and 84 are under investigation by CSPO.
 - Combining Blocks 3 and 4.
 - Stretching some FY 84 procurement into FY 85.
 - Defer Block 2 and 4 or just 4.
 - Partial implementation of Blocks 2 and 4.

- Schedule

- . PERT shows 15 Mar 83 as initial delivery to CIA (70% confidence); [redacted] management commitment is to make 31 Dec 81 (CSPO feels it is doubtful).
- . CSPO believes FY 82 reduction in staff will not increase risk of delivery (might enhance it).

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- . Full Block 1 October 1983.
- . Block 3 IPR August 1982; Block 3 PDR March 1983.
- . System PDR October 1982.
- . CSPO directed that DIA unique requirements for Block 3 (DBMS/Conversion) continue to be reflected in design activity to make PERT schedule of September 1984 (Block 3 - IOC).
- . Block 4 - February 1985; outside current contract.
Additional 2.0 million in FY 85.)

o ADMINISTRATIVE STATUS

- Change Order Summary

- . Total Proposed 30; 25 negotiated/closed (13 no cost; 12 with cost-net change to contract - \$3.9 million (\$75.7M versus \$71.7M)).
- . Above data includes \$8.1 million removed for terminals (\$5.7M) printers (\$2.4M) and \$4.2M in increases.
- . Fidelity of costs prior to negotiations is lacking, i.e., C.O. 30 negotiated at \$96K vice proposed \$125K.
- . Change Orders 17 and 19 withdrawn by contractor because of lack of cost fidelity - changes resulting from design reviews and ASPEC approval.
- . Change Orders 18, 23, 29 not proposed.
-- Involve security (18) and (23); SAFE cryptographic ignition key (29).

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- [REDACTED]

- . Staffed above previous plan; achievement lagging against plan.
- . Peaked earlier and higher.
- . Management infrastructure causes overlapping of functions/ responsibilities.
- Project Plan/Financial Plan
 - . Late - now mid-December vice end of October 1981, then 20 Nov 81.
 - . Contractor finally achieving detailed planning necessary for control and management of software development.

- . PERT still does not contain Communications and External Message Processing (EMP) activities.
 - CSPO directed that they be PERT-ed.
- Management changes appear to be taking effect.
 - . Senior System Engineer; entire responsibility - strong decisive leader.
 - . Senior Software Engineer; entire responsibility for development - experienced, stable and effective.
 - . Senior Communications Engineer - entire responsibility for comm development - capable, experienced, has brought comm development under control.

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o PROBLEMS

- Contractor behind
 - . PERT shows 15 March 1983 delivery.
 - . Detailed design must start 1 Dec 81 delivery to meet schedule of 15 Mar 83.
 - . Ready in some areas to begin; others will take to March 1982 to clean up.

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- . Initial CIA delivery not in line with management commitment.
- Delivery of Block 3 in September 1984 has yet to be confirmed by a finished project plan (Block 4 will at least partially fall outside current contract).

o SUMMARY

- The contractor is just now coming through a period of confusion. While the design of the system is still not defined with adequate resolution, concrete progress can be seen and the direction is correct. Software definition has been improving since early September with detailed initial planning for production of early units. Much work remains to be done to ensure sound technical results.
- Communications is under technical control with most problems well understood.
- The "burn rate" is too high for the 1982 budget and for the state of development. It is being reduced (after many promises) by staff reductions which will not jeopardize early schedules.

- The introduction of three key managers, [redacted] in Software, [redacted] in Systems Engineering, has changed the outlook from one of uncertainty to one of guarded optimism. STAT
- Senior management at [redacted] is committed to initial operations at CIA at the end of 1982. March of 1983 seems more likely with an additional three months possible. STAT
- The Government is taking a directive role in resolution of the schedule, technical and programmatic problems at [redacted] STAT

COORDINATION: VP
RS

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PREPARED BY:

APPROVED BY:

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CAS 214 —
+ 2.5M / yr

Visit - 2nd or 3rd week Jan

End Jan - Alternatives for \$5 M plus.
Plan Staff Comm. meet.
Then DCI + OPA brief.

John - Burkholder - keep pressure on